

#### Office of Economic & Manpower Analysis

Department of Social Sciences, United States Military Academy



#### A Look at Female Army Officer Retention

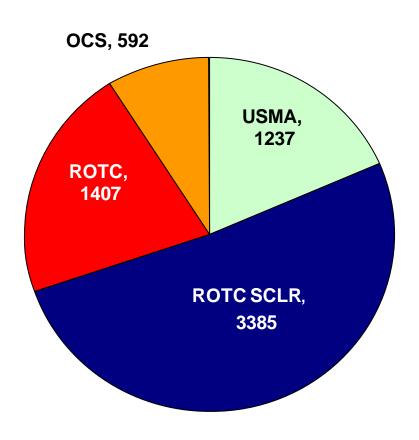
Prepared by

COL E. Casey Wardynski Mr. Luke B. Gallagher

21 November 2003

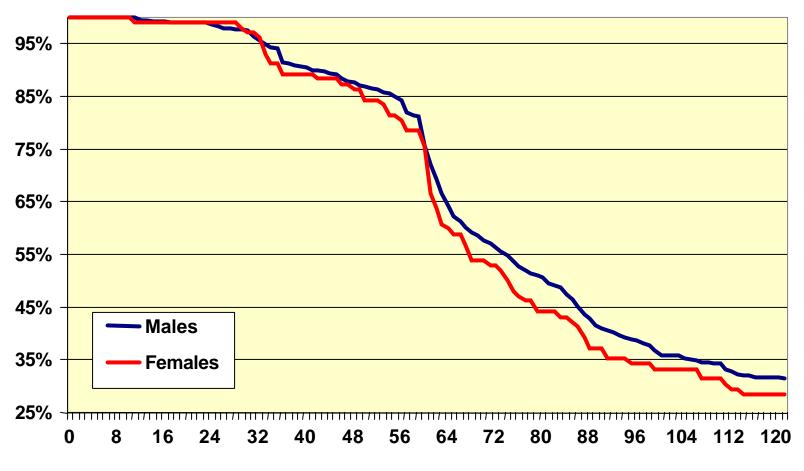


#### Female Army Officers Are Drawn Primarily from Scholarship Programs



### Male and Female USMA Graduates Exhibit Very Similar Active Duty Continuation Patterns

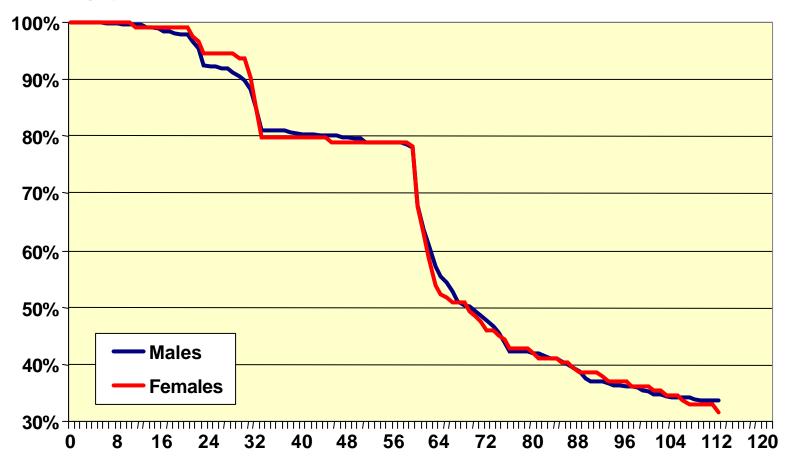
### Share of Year Group 1992 USMA Graduates Continuing by Gender



**Months After Commissioning** 

# The Similarity in Male and Female USMA Graduate Continuation Patterns Is Stable Across Year Groups

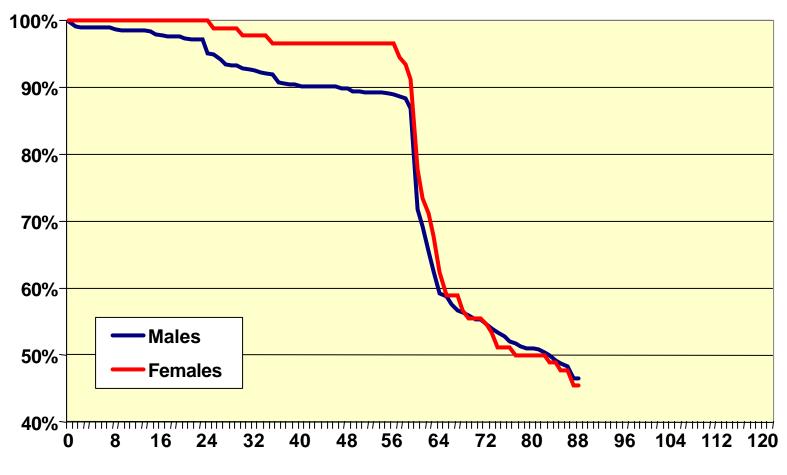
### **Share of Year Group 1994 USMA Graduates Continuing by Gender**



**Months After Commissioning** 

Where Male and Female Continuation Patterns Diverge, the Basis Can Often Be Found In Policy. Specifically, Year Group 1996 Males Separated at Relatively High Rates Prior to Expiration of their Five Year Service Obligation Due to the Operation of the National Guard Combat Reserve Reform Act of 1992

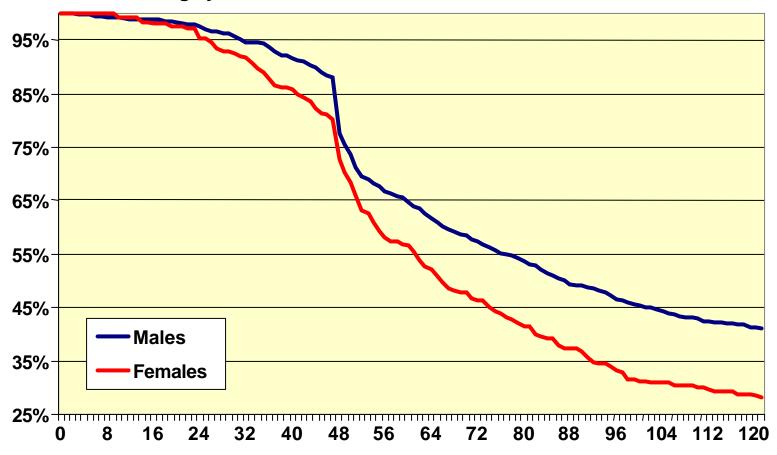
### **Share of Year Group 1996 USMA Graduates Continuing by Gender**



**Months After Commissioning** 

# Graduates of ROTC Scholarship Programs Exhibit a Relatively High Divergence in Continuations by Gender with Females Continuing at Lower Rates

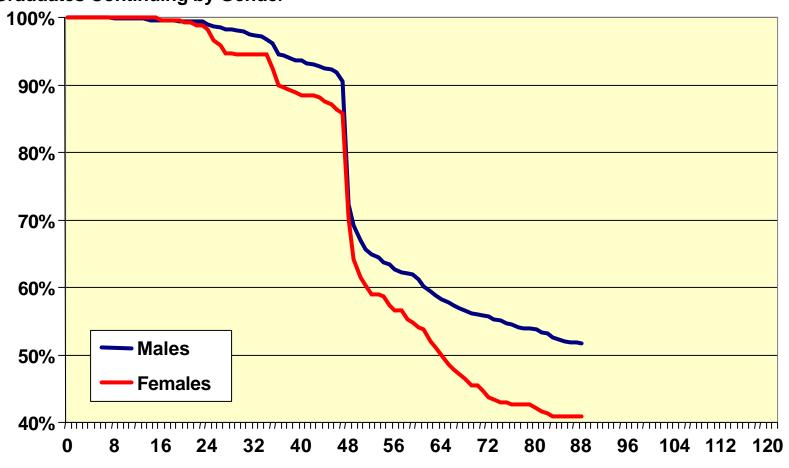
#### Share of Year Group 1992 ROTC Scholarship Graduates Continuing by Gender



**Months After Commissioning** 

# The Pattern of Lower Female Officer Continuations Among ROTC Scholarship Officers is Consistent Across Year Groups

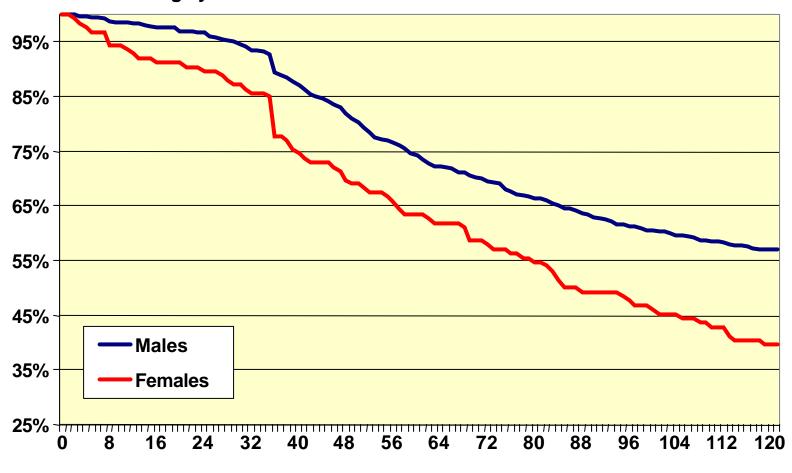
Share of Year Group 1996 ROTC Scholarship Graduates Continuing by Gender



**Months After Commissioning** 

# Graduates of ROTC Non-Scholarship Programs Also Exhibit a Relatively High Divergence in Continuations by Gender with Females Continuing at Lower Rates

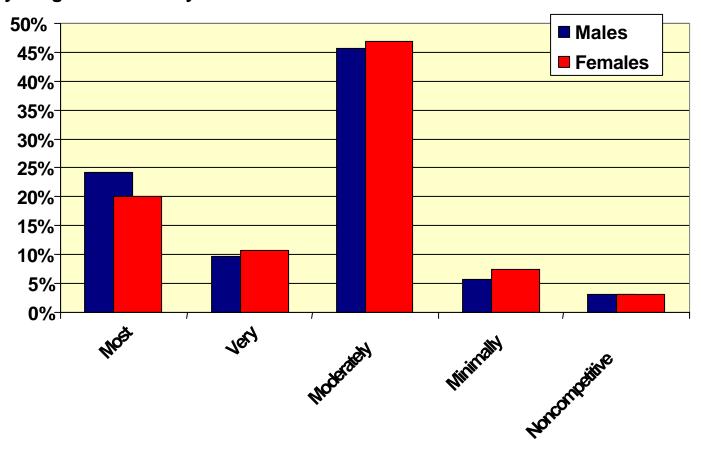
#### Share of Year Group 1992 ROTC Non Scholarship Graduates Continuing by Gender



**Months After Commissioning** 

# Male and Female Army Officers Tend to Graduate from Undergraduate Institutions that are Similar in Terms of Admissions Competitiveness

#### **Share of Graduates of Undergraduate Instructions** by Program Selectivity



Selectivity of Undergraduate Institutions (Difficultly of Securing Admission)

(Peterson's Guide to Undergraduate Institutions)

#### Peterson's Selectivity Ratings for Undergraduate Institutions Based on the Competitiveness of Entering Freshman Class

- **Noncompetitive:** Virtually all applicants were accepted, regardless of their high school rank or test scores.
- Minimally Difficult: Most freshman accepted were not in the top half of their class and scored somewhat below 900 on the SAT or below 18 on the ACT; about 85% of fewer of the applicants were accepted.
- Moderately Difficult: More than 75% of freshman were in the top half of their high school class and scored over 900 on the SAT or over 18 on the ACT; about 85% or fewer of the applicants were accepted.
- **Very Difficult:** More than 50% of freshman were in the top 10% of their high school class and scored over 1150 on the SAT or over 26 on the ACT; about 60% or fewer of the applicants were accepted.
- **Most Difficult:** More than 75% of freshman were in the top 10% of their high school class and scored over 1250 on the SAT or over 29 on the ACT; about 30% of the applicants were accepted.

## The Nation's "Most Difficult" Undergraduate Programs in Terms of Entrance Competitiveness as Rates in Peterson's College Database

### Distribution of Officers Attending "Most Difficult" Programs for Year Groups 1994 through 2001

AMHERST COLLEGE

**BARNARD COLLEGE** 

**BATES COLLEGE** 

**BOWDOIN COLLEGE** 

**BRANDEIS UNIVESITY** 

**BRYN MAWR COLLEGE** 

**CALIFORNIA INSTITUTE OF TECHNOLOGY** 

**COLBY COLLEGE** 

**COLUMBIA COLLEGE** 

**COLUMBUA UNIVERSITY** 

**COOPER UNION** 

.9% CORNELL UNIVERSITY

**DARTMOTH COLLEGE** 

.7% DUKE UNIVERSITY

**EMORY UNIVERSITY** 

.5% GEORGETOWN UNIVERSITY

HARVARD UNIVERSITY

HARVEY MUDD COLLEGE

.5% JOHNS HOPKINS UNIVERSITY

.6% LEHIGH UNIVERSITY

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

**NEW YORK UNIVERSITY** 

NORTHWESTERN UNIVERSITY

**POMONA COLLEGE** 

.6% PRINCETON UNIVERSITY

RICE UNIVERSITY

STANFORD UNIVERSITY

**TUFTS UNIVERSITY** 

UNITED STATES AIR FORCE ACADEMY

89.4% UNITED STATES MILITARY ACADEMY

**UNIVERSITY OF CHIGAGO** 

2.4% UNIVERSITY OF NOTRE DAME

UNIVERSITY OF PENNSYLVANIA

THE UNIVERSITY OF TEXAS

1.1% UNIVERSITY OF VIRGINIA

WASHINGTON AND LEE UNIVERSITY

.6% WASHINGTON UNIVERSITY, ST LOUIS

**WEBB INSTITUTE** 

WELLESLEY COLLEGE

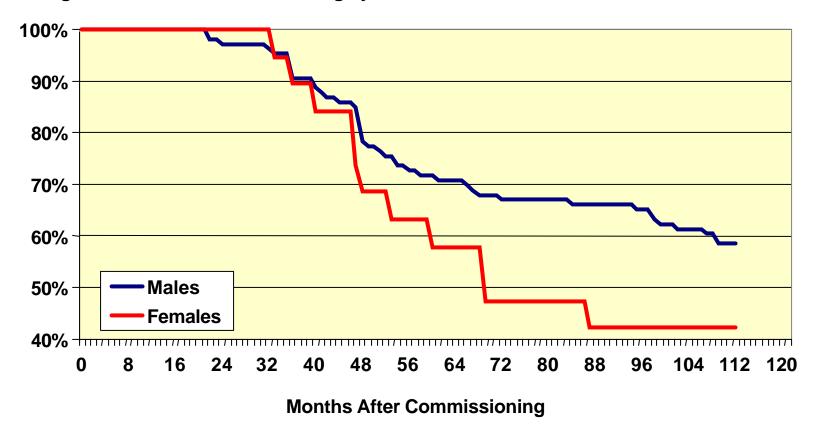
**WESLEYAN UNIVERSITY** 

**WILLIAMS COLLEGE** 

YALE UNIVERSITY

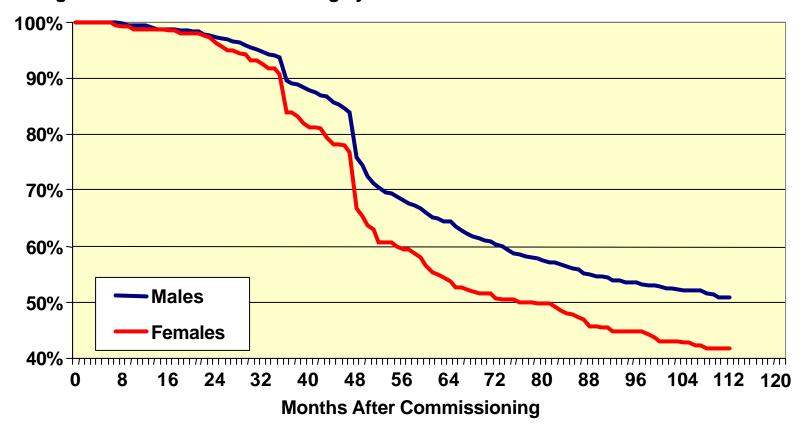
# Male and Female Army Officers Who Graduated from Noncompetitive Undergraduate Institutions Exhibited the Greatest Divergence in Continuations

#### Share of Year Group 1994 Graduates From Noncompetitive Undergraduate Institutions Remaining by Sex



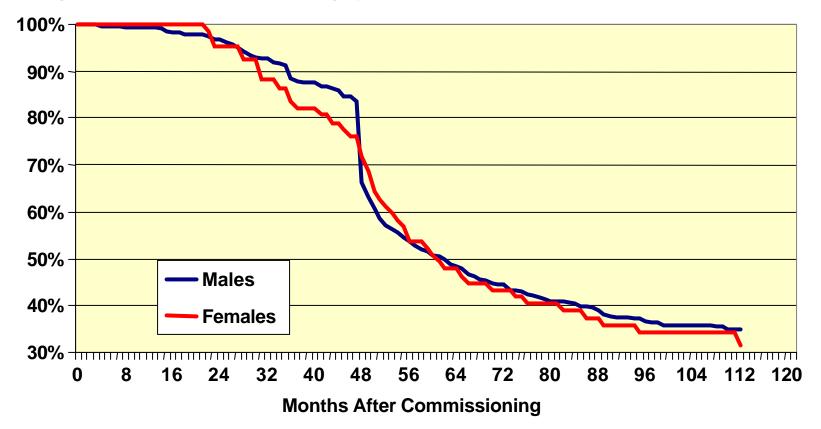
# The Divergence in Continuation Patterns Across Genders Tends to Decrease as the Competitiveness of their Alma Mater Increases

#### Share of Year Group 1994 Graduates From Moderately Competitive Undergraduate Institutions Remaining by Sex



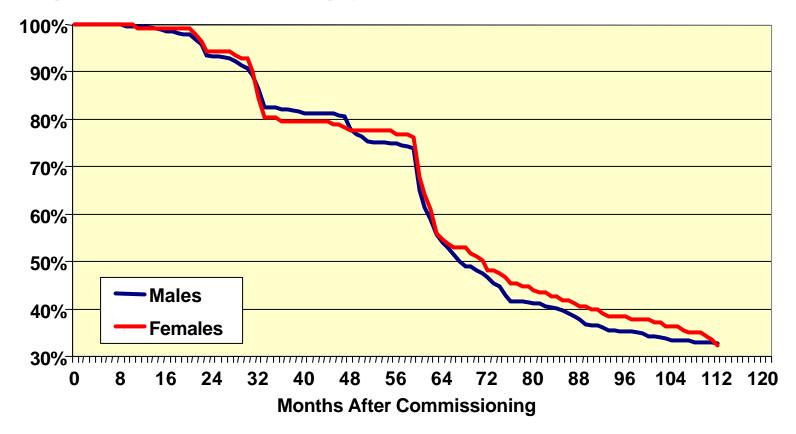
# Male and Female Graduates of Very Competitive Undergraduate Institutions Continue at Very Similar Rates

Share of Year Group 1994 Graduates From Very Competitive Undergraduate Institutions Remaining by Sex

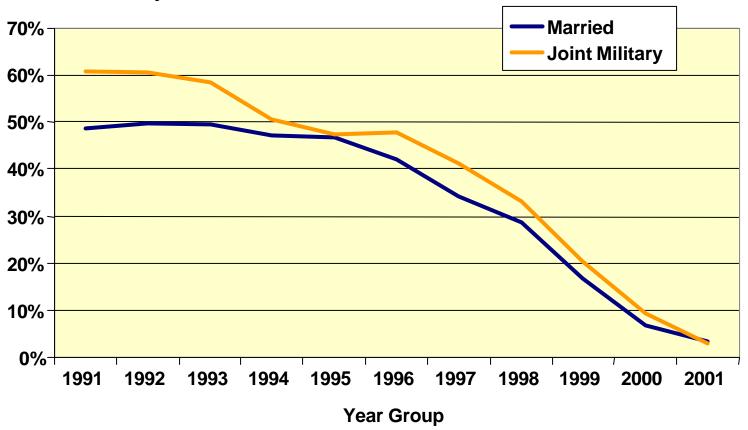


# Male and Female Graduates of the Most Competitive Undergraduate Institutions Also Continue at Very Similar Rates

Share of Year Group 1994 Graduates From the Most Competitive Undergraduate Institutions Remaining by Sex

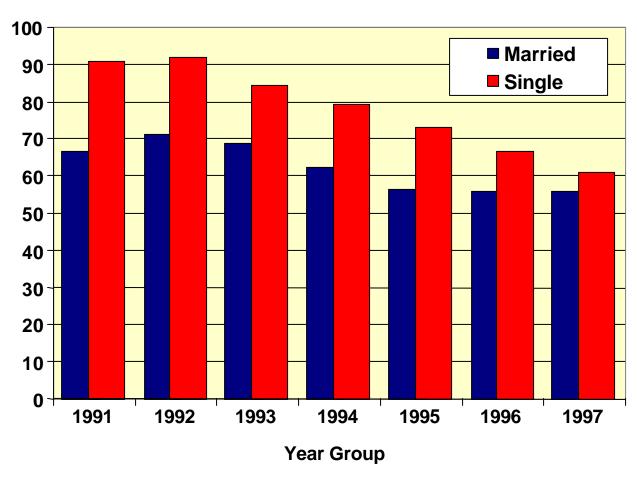






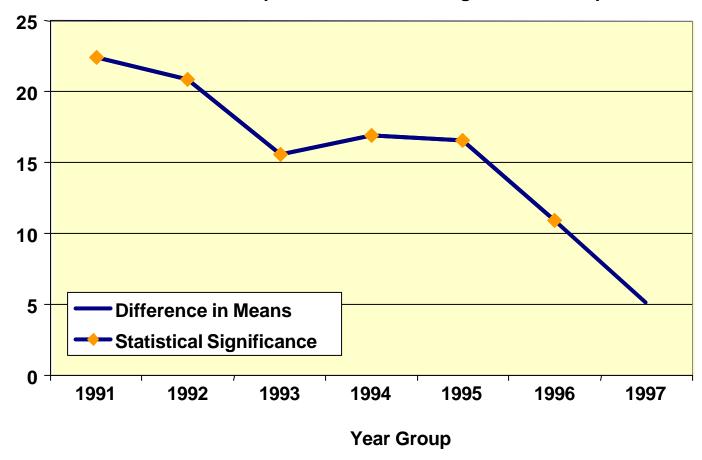
# Among Female Officers Separating from the Army, those Who Remained Single During their Active Duty Service Obligation Served the Longest

#### **Mean Months of Federal Active Service Upon Separation**



Female Officers Who Marred Prior to the End of their Active Duty Service Obligation (ADSO) were More Likely to Separate than those Who were Single at ADSO Expiration

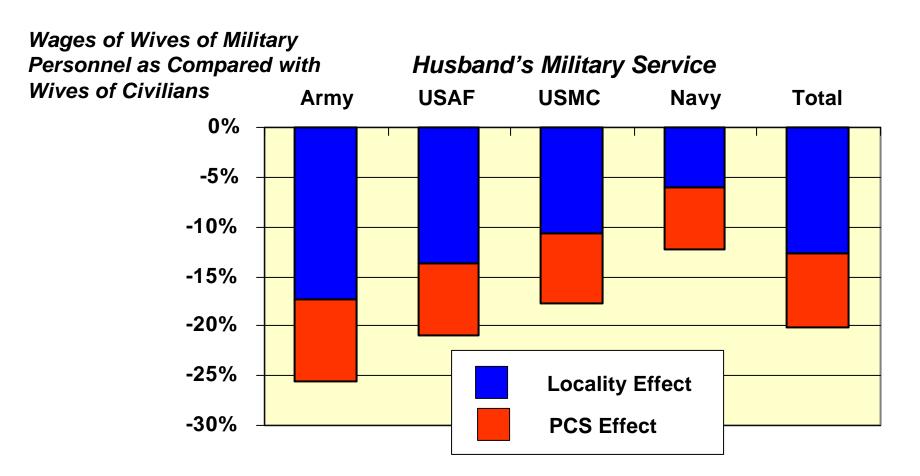
Difference in Mean Months of Federal Active Service Upon Separation for Females Married at ADSO Expiration and those Single at ADSO Expiration



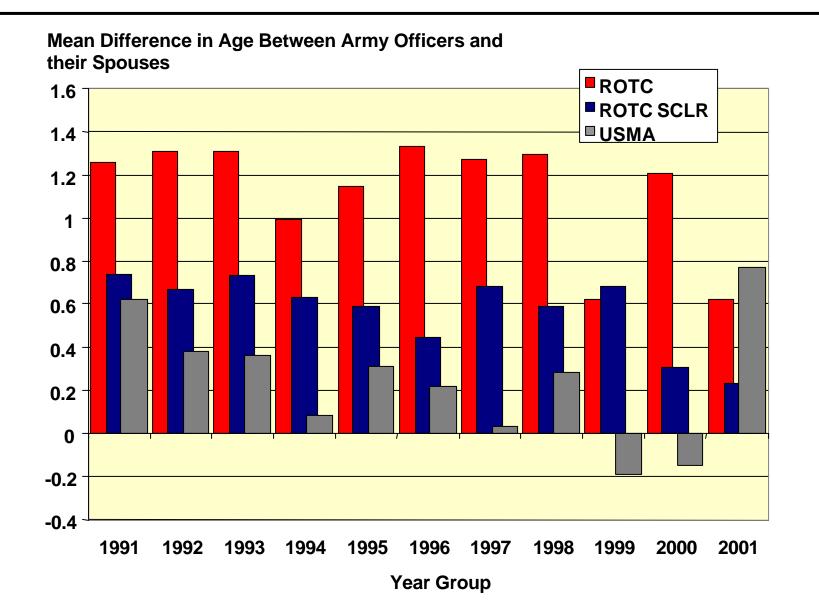
# Military Service is Associated with a Significant Wage Penalty for the Civilian Spouse – Much of this Penalty Accrues from Poor Local Labor Markets

### Earnings Penalty Exhibited by Wives of Military Personnel Within Military Services

Data Source: 1992 Surveys of Officers, Enlisted Personnel and Military Spouses



In Couples where the Wife was a Female Officer, the Wife Tended to Marry an Older Male. Since Age is Associated with Job Tenure, Relatively High Separations Among Married Female Officers May be Based Upon Economic Considerations



# 30+ Percent of Female USMA Graduates Marry Male USMA Graduates. In Most Cases, these Females were the Peer of, or Junior to their Husband in Terms of Year Group and Accession into the Army

#### Marriages Between USMA Graduates (Year Groups 1991-2001)

	Female Year Group											
Male Year Group	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	Total
1991	23	13	7	1								44
1992	1	19	8	5	1	1					•	35
1993	3	1	20	12	6						•	42
1994			3	30	5	3			1			42
1995			2	1	19	8	3					33
1996					5	23	6	1				35
1997						1	19	3	1	1		25
1998							2	25	9	1		37
1999								1	20	6	4	31
2000									2	25	6	33
2001											5	5
Total	27	33	40	49	36	36	30	30	33	33	15	362

# 8+ Percent of Female ROTC Graduates Marry Male ROTC Graduates. In Most Cases, these Females were the Peer or Junior of their Husband in Terms of Year Group and Ultimately Accession into the Army

#### Marriages Between ROTC Scholarship Graduates (Year Groups 1991-2001)

Male	Female Year Group											
Year Group	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	Total
1991	15	11	6	•	2	-			•	1	-	35
1992	8	21	8	8	2	•	3.		•	•	•	50
1993	1	5	20	8	7	3	2	1				47
1994		3	5	15	9	4	3					39
1995		1.	1	7	21	19	3	3	1		1	56
1996		1.	1	2	6	22	8	2	1	1		43
1997				1.		6	23	8	5		1	44
1998							8	18	8	1		35
1999						1	1.	3	9	5		24
2000					1				4	12	5	27
2001										1	6	8
Total	24	42	40	41	49	55	51	45	36	25	17	426

#### **Observations**

The Divergence between Male and Female Army Officer Continuations Can be Associated with:

Undergraduate Program / Undergraduate Program Competitiveness

The Divergence in Continuations Across Genders Decreases as the Competitiveness of Officers' Alma Mater Increases

**Marital Status** 

Female Officers in Joint Military Couples Tend to Separate While the Male Officers in Such Couples Remains in the Army

Economic Considerations Are Likely to be an Important Factor Associated with the Relatively High Rates of Female Separations

Among All Married Officers, Female Officers Tend to Separate at Higher Rates

Economic Considerations Are Likely to be an Important Factor Associated with the Relatively High Rates of Female Separations